

Attorney Docket No. 57761.000137
GE Docket No. 11RC-4959
Application Serial No. 09/877,226

REMARKS

Claims 1-25 are pending in the application. By this Amendment, claims 1, 5, 7-12 and 16-22 are amended. Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested.

I. The Claims Define Patentable Subject Matter

A. The Rejection of Claims 1-25 under 35 U.S.C. §112

The Office Action rejects claims 1, 11, 12, and 22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The claims are hereby amended to overcome the asserted deficiencies. Withdrawal of the pending rejection under 35 U.S.C. §112 is respectfully requested.

B. The Rejection of Claims 1, 3-5, 10, 12, 14-16 and 21

The Office Action rejects claims 1, 3-5, 10, 12, 14-16 and 21 under 35 U.S.C. 103(a) as unpatentable over U.S. Patent 6,236,332 to Conkright et al. (Conkright) in view of U.S. Patent application Publication No. 2004/0054717 to Aubry et al. (Aubry). This rejection is respectfully traversed as it pertains to amended claim 1.

Claim 1 is amended to recite a system for monitoring a utility substation comprising monitoring equipment operatively connected to a utility substation for monitoring operating conditions of the utility substation; the monitoring equipment being operatively connected to an application service provider through a first communication network, the application service provider being provided with a program to effect the monitoring; one or more substation network

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interface devices operatively connected to the application service provider by a second communication network for receiving notification of operating conditions of the utility substation monitored by the monitoring equipment, at least one of the substation network interface devices being in the form of a computer system, the at least one of the substation network interface devices provided with a device program for communicating with the application service provider, the device program being not uniquely adapted for said monitoring.

As illustratively described in Conkright, Conkright is directed to a control and monitoring system of remotely located signboard lights, where "a customer 24, can command unit 26 to activate its associated electrical apparatus at a first desired time and later deactivate it at a second desired time. The first and second desired times may be based on standard clock time (column 6, lines 31-36). In addition, as previously noted in the June 16, 2003 Response, Conkright teaches that the subscriber software 30 is adapted for each application (e.g., monitoring utilities, monitoring traffic flow, monitoring lighting, etc.), and the customers 24 install the software on a personal computer (PC) at their home or office. This gives the customers desktop control of their applications and allows the customers to create a database on their computers for each remote unit within their particular application. Conkright describes that data is preferably transmitted between each customer's computer and the host computer 22 via telephone lines and modems.

Aubry is directed to an application service provider (ASP) method and apparatus for granting access to registered customers of oil and gas exploration and production (E&P) companies to network software services offered by an application service providers (ASPs). The

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Office Action asserts that Konkright teaches all of the features of the claimed invention except for an application service provider provided with a program to effect the monitoring and the at least one network device provided with a device program for communicating with the application service provider, the device program being not uniquely adapted for the monitoring. The Office Action attempts to cure the deficiencies of Konkright with the teachings of Aubry.

The Examiner's comments regarding the features of claim 1 vis-à-vis the applied art, and the claimed feature of an application service provider, have been carefully reviewed and considered.

Konkright teaches that a customer 24 may be provided with a processing system and that such processing system may interface with Konkright's host computer 22. However, of particular note, Konkright teaches that the customers 24 install the software on a personal computer (PC) at their home or office. It is respectfully submitted that such teaching of Konkright teaches away from the features of amended claim 1. That is, claim 1 has been amended to reflect, for example, the situation in which a standard browser is utilized to interface with the claimed application service provider. This aspect of claim 1 is embodied in the language "at least one of the substation network interface devices being in the form of a computer system, the at least one of the substation network interface devices provided with a device program for communicating with the application service provider, the device program being not uniquely adapted for said monitoring."

That is, Konkright teaches that the subscriber software 30 is adapted for each application (e.g., monitoring utilities, monitoring traffic flow, monitoring lighting, etc.). This teaching of

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Conkright is fundamentally different than the claimed invention. That is, Applicant respectfully submits that the subscriber software 30 of Conkright is indeed uniquely adapted for said monitoring.

Aubry teaches with reference to FIG. 1, that an Infostore 10 represents a computer with a database linked to the Internet 12. A customer/user or manager 14 (where the 'manager' is an externally located paying customer) can dial-up and attempt to obtain access to the Infostore 10 via the Internet 12. When the manager 14 has accessed the Infostore 10, the manager 14 can look at a catalog of services stored in the Infostore 10, and the manager 14 can purchase 'some or all of these catalog of services for ultimate use by the manager 14 himself or for ultimate use by certain ones of the manager's delegates, called users 16 (where the users 16 are also externally located paying customers). Applicant respectfully submits that the application service provider of Aubry and the features of Aubry are fundamentally different than that of Conkright so as to clearly teach away from the proposed combination as set forth in the Office Action.

Conkright describes that the Conkright subscriber software 30 is adapted for each application (e.g., monitoring utilities, monitoring traffic flow, monitoring lighting, etc.), and the customers 24 install the software on a personal computer (PC) at their home or office. This gives the customers desktop control of their applications and allows the customers to create a database on their computers for each remote unit within their particular application. Data is preferably transmitted between each customer's computer and the host computer 22 via telephone lines and modems. Accordingly, such disclosure of Conkright sets forth the operating environment of the invention of Conkright. Conkright clearly sets forth that the customers 24 install the software on

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a personal computer (PC) at their home or office. Such teaching is clearly and fundamentally different than the teachings of Aubry.

The Office Action asserts that the motivation to combine would have been that Aubry suggests that the combination would have provided an improvement over requiring installation of software on a user's computer thereby allowing a user to have more control over the implementation of the desired software and save the user time and money by outsourcing technology. However, based on the Konkright disclosure noted above, it is submitted that Konkright sounds of a benefit that the software is indeed installed on the user's computer. Accordingly, it is submitted that it would not have been obvious to modify the teachings of Konkright with Aubry as proposed in the Office Action.

Further, Konkright describes that data is preferably transmitted between each customer's computer and the host computer 22 via telephone lines and modems (column 3, lines 40-43). It is submitted that if the ASP arrangement of Aubry were somehow implemented in the system of Konkright, such arrangement would provide a level of complexity that would not be desired. That is, such arrangement would have data being transmitted between each customer's computer and the host computer 22 via telephone lines and modems, as well as data transmitted to support the actual customer software, i.e., data communication between the customer's computer and the ASP of Aubry. Such arrangement would result in a complex communication arrangement that would not be desirable and which it appears would be unwieldy, in particular since Konkright teaches that data is preferably transmitted via telephone lines and modems. For such reasons, it is submitted that the one of ordinary skill would not have been motivated to combine the

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teachings of the applied art, as proposed in the Office Action. Rather, it is respectfully submitted that the Office Action is relying on impermissible hindsight in picking and choosing between the teachings of Konkright and Aubry so as to allegedly teach the claimed invention.

Accordingly, it is respectfully submitted that claim 1 defines patentable subject matter for the reasons set forth above. Further, it is submitted that claim 12 defines patentable subject matter for reasons similar to those set forth with respect to claim 1.

Further, dependent claims 3-5, 10, 14-16 and 21 define patentable subject matter based on their various dependencies on such independent claims, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

C. The Rejection of Claims 2 and 13

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konkright in view of Aubry and further in view of U.S. Patent No. 5,406,495 to Hill. This rejection is respectfully traversed.

Hill is directed to substation load distribution monitoring and control system by monitoring primary current using discrete time Fourier transform, and tracking the actual frequency of the primary current waveform (column 1, lines 41-51). The Office Action asserts that Konkright and Aubry teach all of the features of the claimed invention except for including monitoring equipment for measuring the voltage of the utility device. The Office Action attempts to cure the deficiencies of Konkright and Aubry with the teachings of Hill.

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Specifically, the Office Action asserts that Hill teaches a substation load distribution monitoring system comprising remote data units for sensing operating conditions of the power equipment (column 3, lines 20-29) including periodic voltage and current data (column 1, lines 48-55); and that Hill also teaches that the remote data units communicate with a host computer over a communication network to transfer measured data (column 3, lines 4-17).

The Office Action further asserts that it would have been obvious to one having ordinary skill in the art to modify the invention of Conkright and Aubry to include monitoring equipment for measuring the voltage of the utility device, as taught by Hill, because Conkright teaches a system for use in a plurality systems including a system employing condition monitoring over an AC power line (column 7, lines 9-11) and Hill suggests that the combination would have provided an improved-accuracy and simplified method of remote monitoring in a power system (column 1, lines 7-15), and therefore provided higher protection, by monitoring the voltage and current rather than just the current (column 6, lines 48-66).

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Conkright and Aubry with Hill, such combination would fail to teach or suggest the invention of claims 1 and 12, as discussed above. The disclosure of Hill and the asserted combination in the Office Action fail to cure the deficiencies noted above.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claims 1 and 12. Thus, dependent claims 2 and 13 define patentable subject matter based on their various dependencies

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on such independent claims 1 and 12, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

D. The Rejection of Claims 7-9 and 18-20

Claims 7-9 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konkright in view of Aubry and further in view of U.S. Patent No. 6,006,171 to Vines et al. (Vines). This rejection is respectfully traversed.

As discussed in the June 16, 2003 Response, Vines is directed to a dynamic maintenance management system. The Office Action asserts that Konkright and Aubry teach all of the features of the claimed invention except for including automatic reporting, maintenance scheduling, and administrative tracking programs in the customer interface device. The Office Action attempts to cure such deficiencies of Konkright and Aubry with the teachings of Vines.

Specifically, the Office Action asserts that Vines teaches a dynamic maintenance management system comprising a monitoring and analysis process for sending and receiving process control data to and from sensors and devices over a communication bus (column 3, lines 33-37); and that Vines teaches sending this information to a DMM configurator that processes the information (column 3, lines 53-65) to automatically provide reports describing device operation, preventive maintenance schedules, and administrative tracking (i.e. creating work orders including worker assignment) (column 5, lines 17-29 and 50-61 and Figures 3-9).

In the Office Action, the Office Action asserts that it would have been obvious to one having ordinary skill in the art to modify the combined inventions of Konkright and Aubry to

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include automatic reporting, maintenance scheduling, and administrative tracking programs in the customer interface device, as taught by Vines.

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Konkright and Aubry with Vines, such combination would fail to teach or suggest the invention of claims 1 and 12.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claims 1 and 12. Thus, dependent claims 7-9 and 18-20 define patentable subject matter based on their various dependencies on such independent claims, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

E. The Rejection of Claims 6 and 17

Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konkright in view of Aubry and further in view of U.S. Patent No. 5,712,896 to Lee et al. (Lee). This rejection is respectfully traversed.

Lee is directed to a method of diagnosing a fault of a telephone switch/exchange. In the switching system or the exchange, hardware function (111) comprises a speech path which is necessary for a call processing, control device having a signal device and a distributed system, an input/output device and an auxiliary memory device (column 2, lines 63-67). The Office Action asserts that Konkright teaches all of the features of the claimed invention except for an expert database. The Office Action attempts to cure the deficiencies of Konkright and Aubry with the teachings of Lee.

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Specifically, the Office Action asserts that it would have been obvious to one having ordinary skill in the art to modify the combined inventions of Konkright and Aubry to include an expertise database, as taught by Lee, because, as suggested by Lee, the combination would have provided a method for determining the type of fault that has occurred without the need of an expert in the field by providing interactive questions that guide the user through the process, and therefore allowed the diagnosis to be conducted immediately by an unskilled worker.

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Konkright and Aubry with Lee, such combination would fail to teach or suggest the invention of claims 1 and 12, so as to cure the deficiencies of the applied art, as discussed above.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claims 1 and 12. Thus, dependent claims 6 and 17 define patentable subject matter based on their various dependencies on such independent claims, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

F. The Rejection of Claims 11 and 22

Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unparentable over Konkright in view of Aubry, Hill, Vines, Lee, and International Publication Number WO 00/04427 to Parsons (Parsons). This rejection is respectfully traversed.

The teachings of Konkright, Aubry, Hill, Vines and Lee are discussed above. Parsons is directed to an apparatus that allows for the monitoring and control of an electrical appliance or a

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utility. Parsons explains that this is achieved by using a master web server that can communicate with remote slave nodes using a protocol for control and automation over networks of different media.

The Office Action asserts that Konkright teaches many of the features of the claimed invention including specifying that the host computer connect to the customer interface through the Internet, but does not teach including monitoring equipment for measuring the voltage of the utility device, including automatic reporting, maintenance scheduling, and administrative tracking programs, including an expertise database, or specifying that the connection between the monitoring equipment and the host computer be the Internet. The Office Action in turn applies each of the applied art, as discussed above.

The Office Action asserts that Aubry teaches an application service provider method and apparatus comprising a network interface device in the form of a computer system (0039) provided with a device program, which is not uniquely adapted for monitoring (i.e. a generic browser) (0005 and 0014), for communicating, over the internet, with an application service provider with a program to effect any desired function (0014-0015) such as monitoring (0050 and 0097).

The Office Action also asserts that Hill teaches a substation load distribution monitoring system comprising remote data units for sensing operating conditions of the power equipment (column 3, lines 20-29) including periodic voltage and current data (column 1, lines 48-55). Hill also teaches that the remote data units communicate with a host computer over a communication network to transfer measured data (column 3, lines 4-17).

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Furthermore, the Office Action also asserts that Vines teaches a dynamic maintenance management system comprising a monitoring and analysis process for sending and receiving process control data to and from sensors and devices over a communications bus (column 3, lines 33-37). The Examiner asserts that Vines also teaches sending this information to a DMM configurator that processes the information (column 3, lines 53-56) to automatically provide reports describing device operation, preventive maintenance schedules, and administrative tracking (i.e. creating work orders including work assignment) (column 5, lines 17-29 and 50-61 and Figures 3-9).

The Office Action also asserts that Lee teaches a method for diagnosing a fault comprising software that is executed by a hardware function to maintain/repair operation the hardware (column 3, lines 1-4) wherein the state of a fault occurring is detected by either by a hardware or software fault detection function (column 3, lines 5-12). And that Lee also teaches that a fault message is outputted from a switching system to a user via a fault diagnosis expert system and a user matching function (column 3, lines 21-23) that communicates, via an inference engine and a multimedia or graphic interface, questions to the user relating to the diagnosis using a corresponding knowledge base (i.e. database) (column 3, lines 36-38 and 41-49)

In particular, the Office Action asserts that Parsons teaches an internet utility interconnect means, and corresponding method, comprising operating a remote control and monitoring system that replicates data between a host computer located at a central server site and a set of automation nodes located at a remote site wherein the means to link the data collected for subsequent access is through the Internet (page 6, lines 15-32). Further, the Office Action asserts

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that it would have been obvious to one having ordinary skill in the art to modify the invention of Konkright to include specifying that the connection between the monitoring equipment and the host computer be the Internet, as taught by Parson, because, as suggested by Parsons, the combination would have allowed the web server to be changed by authorized users and therefore enabled residents and other subscribers to conveniently turn on the connected devices whenever desired.

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Konkright with the other applied art, such combination would fail to teach or suggest the invention of claims 11 and 22, for the same reasons as discussed above with respect to claims 1 and 12.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claims 11 and 22. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

G. The Rejection of Claims 23 and 24

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konkright in view of Aubry and further in view of U.S. Patent No. 5,790,424 to Sugihara et al. This rejection is respectfully traversed.

The teachings of Konkright and Aubry are discussed above. Sugihara is directed to a plant monitoring apparatus and monitoring method to provide a suitable display unit for displaying running conditions of a plant and a suitable display method in which, of plant information displayed on a screen, information necessary for an operator can be clearly

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distinguished from unnecessary information (column 1, lines 52-57), wherein the number of times of faults or abnormalities occurring in each of the plant equipments are stored for every plant equipment (column 2, lines 8-10)

The Office Action asserts that Konkright and Aubry teach many of the features of the claimed invention including diagnosing a utility system but does not specifically teach including historical information, comprising actual conditions, surrounding a fault condition for use in diagnosing a problem. The Office Action in turn applies each of the applied art, as discussed above.

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Konkright and Aubry with Sugihara, such combination would fail to teach or suggest the invention of claim 1, so as to cure the deficiencies of the applied art, as discussed above.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claim 1. Thus, dependent claims 23 and 24 define parentable subject matter based on their various dependencies on such independent claim, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

H. The Rejection of Claim 25

Claim 25 is rejected under 35 U.S.C. 103(a) as being unparentable over Konkright in view of Aubry and further in view of U.S. Patent Application Publication No. 2003/0041098 to Lortz. This rejection is respectfully traversed.

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The teachings of Konkright, Aubry are discussed above. Lortz is directed to a [0008] method and system for determining part replacement related information by an end user. A user obtains an identifier associated with a part. A scanner interface automatically couples the obtained identifier to a network enabled browser. The browser automatically connects over a network connection to a remote database to retrieve replacement related information for the part, where such database is searchable by the associated identifier. The retrieved replacement related information for the part is automatically displayed for the end user [0008]. Furthermore, and as an illustration of the Lortz invention, a search for vendors, manufactures and resellers for replacement parts is performed automatically for a user. [0024].

The Office Action asserts that Konkright and Aubry teach many of the features of the claimed invention including a server database that is connected to the communication networks and accessible by the customer interface, but does not specify that the operating equipment query the database to locate spare parts for repair of the faulty equipment. The Office Action in turn applies each of the applied art, as discussed above.

However, it is respectfully submitted that even if it were obvious to somehow combine the teachings of Konkright and Aubry with Lortz, such combination would fail to teach or suggest the invention of claim 12, so as to cure the deficiencies of the applied art, as discussed above.

Accordingly, it is respectfully submitted that the applied art, either alone or in combination, fails to teach or suggest the features as set forth in claim 12. Thus, dependent claim 25 defines patentable subject matter based on its dependency on such independent claim,

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as well as the additional features such dependent claim recites. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

II. Conclusion

For at least the reasons outlined above, Applicant respectfully asserts that the application is in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

For any fees due in connection with filing this Response the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted
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